

## WHAT IS CLAIMED IS

1. A needle-stick safety syringe, comprising:  
an inner tubular body, plunger, and needle extending from a distal end of said inner tubular body;  
5 an outer tubular housing concentric with and sized to fit around at least a portion of said inner tubular body and to slide freely thereon;  
a spring disposed to bias apart said inner tubular body and said outer tubular housing;  
a recess defined within an interior wall surface of said outer tubular  
10 housing; and  
a latch attached to a distal end of said inner tubular body, said latch including a ring-shaped collar permanently attached to said distal end of said inner tubular body and having an outer diameter sized to slide freely within said outer tubular housing and further including a cantilevered push-stop, said  
15 cantilevered push-stop including a portion sized to fit within said recess when said latch is sufficiently disposed within said outer tubular housing, said latch push-stop engaging against a distal edge of said outer tubular housing to oppose bias of said spring;  
wherein when said cantilevered push-stop is urged away from said  
20 outer tubular housing, said spring biases said outer tubular housing over said latch and said recess engages a portion of said push-stop.
2. The syringe of claim 1, wherein said recess defines an annular shape within said interior wall surface of said outer tubular housing.  
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3. The syringe of claim 1, wherein said recess is disposed adjacent a proximal end of said outer tubular housing.
4. The syringe of claim 1, further including an exterior trigger disposed  
30 on an outer surface of said outer tubular housing adjacent a distal end thereof;

wherein user-exerted force on said exterior trigger urges said cantilevered push-stop away from said outer tubular housing.

5        5. The syringe of claim 4, wherein said exterior trigger is a cantilever trigger.

6. The syringe of claim 4, wherein said exterior trigger is selected from a material group consisting of (a) rubber, (b) plastic, and (c) flexible metal.

10        7. The syringe of claim 1, wherein said spring is disposed within said outer tubular housing.

8. A needle-stick safety syringe, comprising:  
an inner tubular body, plunger, and needle extending from a distal end  
15 of said inner tubular body;  
an outer tubular housing concentric with and sized to fit around at least a portion of said inner tubular body and to slide freely thereon;  
a spring disposed within said outer tubular housing to bias apart said inner tubular body and said outer tubular housing;  
20 a recess defining an annulus within an interior wall surface of said outer tubular housing adjacent a proximal end of said outer tubular housing;  
and

a latch attached to a distal end of said inner tubular body, said latch including a ring-shaped collar permanently attached to said distal end of said  
25 inner tubular body and having an outer diameter sized to slide freely within said outer tubular housing and further including a cantilevered push-stop, said cantilevered push-stop including a portion sized to fit within said recess when said latch is sufficiently disposed within said outer tubular housing, said latch push-stop engaging against a distal edge of said outer tubular housing to  
30 oppose bias of said spring;

wherein when said cantilevered push-stop is urged away from said outer tubular housing, said spring biases said outer tubular housing over said latch and said recess engages a portion of said push-stop.

5           9. The syringe of claim 8, further including an exterior trigger disposed on an outer surface of said outer tubular housing adjacent a distal end thereof;

          wherein user-exerted force on said exterior trigger urges said cantilevered push-stop away from said outer tubular housing.

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          10. The syringe of claim 9, wherein said exterior trigger is a cantilever trigger.

          11. The syringe of claim 9, wherein said exterior trigger is selected  
15 from a material group consisting of (a) rubber, (b) plastic, and (c) flexible metal.

          12. A method of fabricating a needle stick safety syringe, comprising the following steps:

20           (A) providing an inner tubular body, plunger, and needle extending from a distal end of said inner tubular body;

          (B) providing an outer tubular housing concentric with and sized to fit around at least a portion of said inner tubular body and to slide freely thereon;

          (C) disposing a spring within said outer tubular housing to bias apart  
25 said inner tubular body and said outer tubular housing;

          (D) defining an annulus-shaped recess within an interior wall surface of said outer tubular housing adjacent a proximal end of said outer tubular housing; and

          (E) attaching a latch to a distal end of said inner tubular body, said  
30 latch including a ring-shaped collar permanently attached to said distal end of said inner tubular body and having an outer diameter sized to slide freely within said outer tubular housing and further including a cantilevered push-

stop, said cantilevered push-stop including a portion sized to fit within said recess when said latch is sufficiently disposed within said outer tubular housing, said latch push-stop engaging against a distal edge of said outer tubular housing to oppose bias of said spring;

5            wherein when said cantilevered push-stop is urged away from said outer tubular housing, said spring biases said outer tubular housing over said latch and said recess engages a portion of said push-stop.

13. The method of claim 12, further including:  
10            disposing an exterior trigger on an outer surface of said outer tubular housing adjacent a distal end thereof;

             wherein user-exerted force on said exterior trigger urges said cantilevered push-stop away from said outer tubular housing.

14. The method of claim 13, wherein said exterior trigger is a cantilever trigger.  
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15. The method of claim 13, wherein said exterior trigger is selected from a material group consisting of (a) rubber, (b) plastic, and (c) flexible  
20        metal.

16. A method of preventing re-use of a needle stick safety syringe, comprising the following steps:

25            (A) providing a syringe having an inner tubular body, plunger, and needle extending from a distal end of said inner tubular body;

             (B) disposing an outer tubular housing concentric with and sized to fit around at least a portion of said inner tubular body and to slide freely thereon, said outer tubular housing having an interior wall defining a recess and said outer tubular housing being biased away from a said needle when said  
30        syringe is to be used;

             (C) attaching a latch to a distal end of said inner tubular body, said latch including a ring-shaped collar permanently attached to said distal end of

said inner tubular body and having an outer diameter sized to slide freely within said outer tubular housing and further including a cantilevered push-stop, said cantilevered push-stop including a portion sized to fit within said recess when said latch is sufficiently disposed within said outer tubular

5 housing, said latch push-stop engaging against a distal edge of said outer tubular housing to oppose bias of said spring;

wherein after said syringe has been used, said cantilevered push-stop is urged away from said outer tubular housing such that said outer tubular housing is biased to cover said latch and said recess engages a portion of  
10 said push-stop, wherein said needle is sheathed within a distal region of said outer tubular housing thereby preventing re-use of said syringe.

17. The method of claim 16, wherein said recess is an annulus-shaped recess.

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18. The method of claim 16, wherein said recess is defined adjacent a proximal end of said outer tubular housing.

19. The method of claim 16, further including disposing a spring within  
20 said outer tubular housing to bias said outer tubular housing relative to said inner tubular body.

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